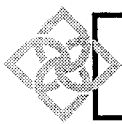


# Emergency Medical Dispatch



## EMD Program Implementation and Administration Manager's Guide

U.S. Department of Health & Human Services  
Public Health Service



**HRSA**

Health Resources & Services Administration  
Maternal & Child Health Bureau



People Saving People

# ***EMD PROGRAM IMPLEMENTATION AND ADMINISTRATION***

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**National Highway Traffic Safety Administration**

**Emergency Medical Dispatch:  
National Standard Curriculum**

*MANAGER'S GUIDE*

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## **Preface**

### **A. The Purpose of the EMD Program Implementation and Administration Manager's Guide**

This guide was developed with one primary assumption. It is assumed that the need for EMD training and implementation has been identified by some responsible agent and that public support and funding has been established. Without support and funding from citizens and public-safety officials, the program will likely lose momentum and fail. This manager's guide is intended to provide appropriate EMS personnel (like the EMS administrator and communications administrator) with a guide to assist them in the planning and implementation process.

The Manager's Guide was developed to provide guidance and suggestions regarding:

- a. the establishment of EMD programs;
- b. administration of EMD programs;
- c. operation of EMD programs;
- d. selection and training of EMD personnel and
- e. evaluation and Quality Assurance/Improvement.

Another purpose of this guide is to:

- a. provide guidance for the development of common expectations among EMD programs and training;
- b. provide a training mechanism for EMD personnel and
- c. provide direction and assistance in understanding, implementing and managing emergency medical dispatch programs.

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## **B. Evolution of EMD**

The concept of Emergency Medical Dispatch (EMD) has been evolving and advancing since the late 1970's. The evolution of professional Emergency Medical Services (EMS) began in the early 1970's with the primary focus on Emergency Medical Technician (EMT) training, followed by paramedic training. As training and advancement in the professional aspects of Emergency Medical Dispatch (EMD) delivery gained momentum nationally, many in the industry recognized another aspect of EMS delivery that had gone basically unattended, the role of the dispatcher.

One of the initial goals of EMS was to provide easy and rapid access to EMS and to subsequently mobilize a medical response to the scene. The intent was to provide rapid on-scene treatment or stabilization of the sick and injured and provide transport to a medical facility for definitive medical intervention. During the middle to late 70's it became evident that the EMS dispatcher played an important role in this process. The dispatcher was the initial contact the calling public had with EMS and they were the ones that were going to mobilize the response. It was clear also that the dispatcher had no uniform or consistent method of caller interrogation and response decision making.

One dispatcher could assess a call and determine that it was a minor medical emergency while another might determine that it was a high level emergency. This lack of consistency led to an over-utilization of Advanced Life Support (ALS) resources and an under-utilization of Basic Life Support (BLS) resources. In many locales, first responders were also utilized on many calls, leading dispatchers to use these resources when they were not required and to fail to use them on cases that clearly needed them. Many dispatch centers were operating with minimal guidelines and most were operating without any professional Medical Oversight or direction.

During the late 1970's and early 1980's, EMD protocols began to be developed to provide the dispatcher with medically sound and clinically based direction. These protocols were designed to guide the emergency medical dispatcher in proper caller questioning techniques to:

- a. identify the level of medical need;
- b. identify situations that might require pre-arrival instructions;
- c. gather information to be relayed to the responding crews to help them address the situation upon arrival and

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- d. obtain information regarding scene safety for the patient, bystanders and responding personnel.

As these Emergency Medical Dispatcher programs gained in popularity, it became evident that a training program was required to assist the dispatcher in applying a new tool called the Emergency Medical Dispatch Protocol Reference System (EMDPRS). Using a standard set of questioning protocols, this tool allows the dispatcher to consistently identify the level of need, identify situations that require pre-arrival instructions, gather information that should be relayed to responding personnel and gather scene safety information. As training programs have evolved, and the EMD concept has matured, it has become clear that an EMD program takes much more to implement than simply obtaining or developing EMS Dispatch protocols, providing training and then letting the dispatch center "run" with the program.

The EMS community determined that a comprehensive and integrated planning and implementation program must be established. Steps must be taken in sequence to ensure proper pre-planning, program selection, EMD training and protocol implementation. Without this integrated and comprehensive approach, the EMD program often loses its initial momentum and administrative support.

There are presently a number of commercially available EMD programs which provide planning and organizational assistance along with training and accompanying Emergency Medical Dispatch Protocol Reference System (EMDPRS) that go along with each particular program. In addition, many agencies have developed their own systems based upon their identified local needs and Medical Oversight direction.

Some EMD protocol systems have been developed without the assistance of a physician medical advisor and involvement from professional medical directors, while others have evolved with the direct involvement of Medical Oversight. EMD program status across the United States presently ranges from in-house developed protocols to professionally developed and marketed systems.

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As a result of inconsistencies in program development and implementation, many states and municipalities have expressed a desire for uniform program standards. These are needed to assist in the proper development and/or selection of an EMD program that includes proper training and certification of EMDs along with medically approved and appropriate EMDPRS program protocols. This has been a driving force behind the development of national voluntary standards which have been developed by the American Society for Testing and Materials (ASTM) and the National Association of Emergency Medical Services Physicians (NAEMSP). Using these voluntary practice standards, The National Highway Traffic Safety Administration developed this **Emergency Medical Dispatch: National Standard Curriculum**.

EMD standards will bring more consistency between programs and program implementation, uniformity in training and certification programs and reciprocal certification between EMD programs. This will lead to increased recognition of EMD programs and the EMD profession as a whole, increasing the professionalism of the EMD and enhancing the delivery of EMS to citizens served in the United States. It will also enhance the efficiency and effectiveness of the delivery of EMS in the U.S. by providing EMDs with:

- a. appropriate training and tools which enable them to make correct decisions on unit response configurations and modes and
- b. tools to provide appropriate and consistent scripted telephone assistance to the patient through the caller before help arrives at the scene.

## **C. Future Roles Anticipated for the EMD**

The goal of emergency medical dispatch is to make sure that the right kind of care is given to the right patient at the right time.

Today's emergency medical dispatchers are trained to interrogate callers in order to identify the nature and severity of the emergency; allocate the EMS system's resources, and give post dispatch prearrival emergency care instructions to callers. Methods of EMD vary dramatically from place to place, depending on the EMS assets available and the level of training and expertise of the EMD.



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Tomorrow's emergency medical dispatchers will be taking on expanded roles as the field of emergency medical dispatch matures. As 9-1-1 and 9-1-1 Enhanced telephone systems reach into more and more communities, the emergency medical dispatch industry will identify new and valuable roles that it can fill to meet the growing needs of the communities it serves.

The reform of health care delivery is rapidly progressing. The advent of managed care and health maintenance organizations (HMO) is and will continue to change the manner in which health care, including emergency medical care, is delivered.

Emergency medical dispatch centers can affect how a person accesses the EMS system. By forming proactive supportive agreements, EMD systems, EMS systems, emergency departments and the HMO community can assure that both emergency and non-emergency patients get the right care at the right time and that the patient is delivered to the right facility. This "win-win" situation can be brought about by using the EMD system, supported by the HMO community, to screen callers and forward them to an emergency medical dispatcher or to non-emergency dispatchers. Once the initial call taker determines that the caller does not have a "true" emergency (by using medically driven and supervised protocols), the non-emergency medical dispatcher will be able to assist the caller in accessing the health care system in the most appropriate and cost effective manner. This would alleviate the overcrowding in emergency departments; better utilize the EMS system; and encourage HMO patients to seek help from their appropriate HMO health provider.

## **D. About Public Safety Telecommunications**

Public safety telecommunications involves much more than someone simply answering the telephone, getting an address and then activating paging systems to dispatch response resources. Public safety telecommunications has evolved into a very specialized and professional field of endeavor requiring attributes and application of knowledge and skills that are not commonly found in other occupations.

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1. **Basic Telecommunications.** Basic Telecommunications education is requisite for all individuals involved in any aspect of public safety telecommunications. Knowledge required includes: basic understanding of telecommunications equipment and FCC regulations, radio communications concepts, telephone communications and interrogation techniques. The practice of Emergency Medical Dispatch is a specialty of telecommunications and should be approached as advanced training for those already skilled and knowledgeable in basic public safety telecommunications.
2. **Intent of Basic Telecommunicator Training.** Basic telecommunicator training is not intended to give complete knowledge about all aspects of public safety communications. It is intended to give a foundation of knowledge about telecommunications to prepare the dispatcher for more advanced training.

There are other specialties of telecommunications that are specific to each dispatcher and their function. Some dispatch centers deal with police communications only. Calls for fire and EMS are then directed to another center or agency. Other dispatch centers, or public safety answering points, answer all incoming calls and requests for emergency services. Whichever type of communications operation the student is involved with determines the specialties in which they must be schooled.

The three primary specialties of telecommunications include:

- a. **Fire Communications.** Dispatchers who work in communication centers, whose primary function is fire related topics, require specialized training in fire related areas of telecommunications. These include fire alarm dispatching, fire incident command systems, hazardous materials and, in some cases, specialized technical rescue operations among others. This requires specific training tailored for this particular specialty.

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There is very little prioritization of fire related cases since fires are escalating emergencies which require immediate response in nearly all cases. These dispatchers need to clearly understand unit response configurations. The fire dispatcher sends different responses to dumpster fires than are sent to respond to an office building fire alarm. These responses are sometimes automatically determined by the Computer Aided Dispatch (CAD) system in computerized operations. In manual systems the response configurations are usually contained within the operational policies and procedures or in written dispatch protocols.

- b. **Law Enforcement Communications.** Dispatchers working primarily with requests for police assistance require specialized training in officer safety, evidence preservation, witness interrogation and special case radio communications among many others. Police dispatchers often require training in the National Crime Information Computer (NCIC) system, and are required to maintain certification in its use.
  - c. **Emergency Medical Communications.** Dispatchers working primarily with requests for medical assistance require specialized training in caller questioning, emergency medical resource allocation, caller management and provision of medical instructions via the telephone. These dispatchers must also understand the differences between Advanced Life-Support (ALS) and Basic Life-Support (BLS) and require specific training in the use of the tool known as the Emergency Medical Dispatch Protocol Reference System (EMDPRS). All EMDs require this training in addition to their basic, solid foundation in general telecommunications education and training in telecommunications techniques.
3. **Common Elements of Public Safety Telecommunications.** Public safety telecommunicators share knowledge among their various fields and subspecialties. Common elements of telecommunication include:
- a. caller questioning;
  - b. radio communications;
  - c. resource allocation;
  - d. resource management;

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- e. records management;
  - f. functioning under FCC rules;
  - g. using telephones, radios, TDD and other electronic telecommunications equipment and
  - h. handling requests and responding to calls from the public.
4. **Basic Telecommunications Training Content.** A basic telecommunicator course includes training in:
- a. the "how-to's" of communication (speed/rate of speech, voice tone, type of codes used, necessity in identifying radio transmissions, radio licensing, FCC rules, etc.);
  - b. call reception;
  - c. recording information;
  - d. interpersonal communications;
  - e. basics of conveying information and understanding;
  - f. organization and management of the communication function;
  - g. maintaining contact with field personnel;
  - h. system trouble shooting and reporting;
  - i. brevity codes and phonetic alphabets;
  - j. twenty-four hour time;
  - k. taking and relaying data;
  - l. record keeping and maintenance;
  - m. message construction and transmission;
  - n. understanding of 9-1-1 systems;
  - o. typing, computer fundamentals and keyboard skills;

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- p. security and privacy issues;
  - q. operation of specific agency equipment and
  - r. the use of standard operating procedures.
5. **Special Knowledge Requirements.** There are special communications knowledge and requirements for each public safety telecommunications specialty. Each communications center establishes the unique requirements of training for that particular center.

## **Summary**

This preface has provided you with information regarding the focus of this guide, the background of EMD and an overview where EMD exists in relation to EMS and Public-Safety Telecommunications.

In the following parts of this guide, you will learn about implementing EMD programs (Part One), training your personnel (Part Two) and suggestions for QA/QI programs and other administrative and maintenance issues (Part Three).

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## **Part One: "How Do I Implement an EMD Program?"**

### **A. The Purpose of Emergency Medical Dispatch Programs**

Emergency Medical Dispatch Programs serve two main purposes: they (1) serve to manage the EMS resources in an organized and effective manner and (2) to provide assistance to callers when needed until trained field response units arrive at the scene.

**NOTE:** Throughout this document you will see the acronym EMD. This acronym has two meanings. EMD can mean "Emergency Medical Dispatcher" or "Emergency Medical Dispatch," depending on the context in which it is used.

### **B. Understanding the EMS System and Sequence of Events**

*Definition of an EMS System.* An emergency medical services (EMS) system is a coordinated arrangement of resources (including personnel, equipment and facilities) organized to respond to medical emergencies regardless of the cause. An EMS system covers the spectrum from prevention (changing behavior to prevent injuries from occurring) through rehabilitation (returning individuals to productive lives after an injury producing incident has occurred). The EMS system is a complex arrangement of components including: statewide legislation; system management; human resources and training; communications; transportation; public information and education; facilities' trauma systems; medical direction and evaluation, all designed to serve the needs of the public in medical emergencies.

#### **1. EMS Resources.**

##### **a. First responders**

- 1) First responders are used to provide immediate response to events determined to be highly urgent. These personnel are often trained in basic life support. Ideally, first responders are trained to the NHTSA standard.

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- 2) Due to the availability and proximity of these units first responders are able to provide immediate response and early access to the patient while the ambulance is enroute to the scene. They provide immediate treatment or stabilization of the patient.
- b. Basic life support (BLS) EMS units
- 1) Basic life support units are usually transport ambulances staffed by emergency medical technicians (EMTs). These personnel have at least 110 hours of training in patient assessment and treatment of fractures, lacerations and other minor injuries. They are also CPR trained and are able to provide appropriate care to patients.
  - 2) EMTs provide treatment and transport for the sick and injured in cases where more advanced treatments and interventions are not required or available. They also may be used to assist more advanced level EMS responders.
- c. Advanced life support (ALS) units
- 1) Usually, advanced life support units are staffed by paramedics who have at least 600 hours of advanced level training in the care and treatment for the sick and injured.
  - 2) There are several levels of ALS. Currently, paramedics are the highest level. All levels of advanced life support function under medical control and have a physician medical advisor responsible for the medical content of the program.  
  
Other ALS levels include EMT-D (for Defibrillator) and EMT-I (for Intermediate). These individuals, while not as highly trained as paramedics, are trained in defibrillation, airway support methods (like endotracheal intubation) and are also trained in establishing intravenous lines for delivery of fluids.
  - 3) The difference between ALS and BLS personnel is that ALS personnel can perform all functions of basic life support personnel. Plus, they have specialized training in advanced cardiac life support, EKG recognition and are



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taught to establish intravenous lines and administer specific cardiac medication along with many other therapeutic medicines under the direction of medical oversight. They are trained in advanced airway maintenance techniques such as endotracheal intubation and have additional training in anatomy and physiology.

- 4) *Why is it important to conserve ALS resources?* ALS resources are expensive to establish, staff and equip. Most municipalities have limited resources resulting in fewer ALS units than BLS resources. The EMD, using the EMDPRS (a local medically approved protocol), can begin to determine those patients that need BLS resources and conserve the fewer ALS responders for those patients who require the higher level of training and interventions they are able to provide. Using ALS personnel on these calls and BLS personnel on cases requiring their level of training also helps keep skills up-to-date and sharp in their fields of expertise.

## **d. Air Medical Services**

- 1) Many EMS systems have air medical support available if needed. These are usually hospital based ALS helicopter services staffed by paramedics and nurses.
- 2) These resources are used in the most severe cases where transport time to the hospital may be the determining factor in patient survival. They are also utilized in remote areas where EMS ground transport units have difficult access.

## **e. EMD Programs and Their Relation to the Public Safety Communications System**

EMD programs are often an integral part of multi-disciplinary communications centers and are a specialty of public safety telecommunications.

- f. **EMD Programs and Their Relation to the EMS system**  
EMD is also an integral part of the EMS system. EMD is a public-safety telecommunications specialty. As such, it is a valuable component to any EMS system.

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The EMD program helps the EMS system provide appropriate responses to patients by determining ALS or BLS need. EMDs also assist in patient care by providing pre-arrival instructions prior to the arrival of EMS personnel at the emergency scene. Properly operating EMD programs enhance the efficiency and effectiveness of EMS systems.

2. **EMD Services.** EMD extends the delivery of EMS services to the caller prior to arrival of the field responders through the provision of protocol driven post-dispatch and/or pre-arrival instructions.
3. **EMD Goals.** The goal of Emergency Medical Dispatching is to ensure that the proper medical resource reaches a patient in a timely fashion and is dispatched in the proper response mode and response configuration. This is accomplished through proper application of the EMDPRS in identifying the chief complaint and the existence or absence of symptoms commonly associated with that chief complaint. This information, combined with age and history-related determinant factors, enable the dispatcher to determine the correct level of assistance required, the urgency required in responding to the scene and whether the case warrants a solitary or multiple response.
4. **Goals of EMD Programs:**
  - a. *better management of EMS and Public Safety Resources* through proper interrogation and situation assessment by the dispatcher is a goal of EMD programs. Time and experience have proven that the properly trained EMD, when functioning as part of a well organized program with a medically approved EMDPRS, can accurately and safely make determinations regarding the severity of an incident and make accurate decisions regarding unit response configurations and modes for the most efficient use of human and material resources;
  - b. *better patient care* through the delivery of post-dispatch/pre-arrival instructions given to the caller to assist the patient until pre-hospital care providers arrive at the scene;
  - c. *improve patient outcome and have better prepared patients* through the provision of post-dispatch/pre-arrival instructions which, in many cases, maintain the unstable patient, preserve the safety of the scene and initiate treatment of other patients;

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- d. *better management of true medical emergencies* through medically approved practices using preplanned emergency scenarios, planned by the medical advisor and EMS administration and incorporated into the EMDPRS for application by the EMD;
- e. *safer emergency responses and safer emergency scenes* by sending the right type of resources in the correct and safest mode depending upon the severity of the incident type. This reduces the number of emergency vehicles responding in the "red lights-and-siren" mode and provides for less personnel at the scene in many cases;
- f. *establish pre-configured responses*; EMDs do not need to "fly by the seat of their pants" or "reinvent the response" for every emergency. These responses are locally determined and customized by local medical oversight and built into the EMDPRS. This provides for uniformity in call handling by all dispatchers and allows for closer quality improvement practices for case evaluation. The EMD's performance can be measured against a standard performance threshold found within the individual protocol the EMD is utilizing on each case;
- g. *provide help in dealing with time critical events*; The EMD program helps dispatchers provide treatment of certain life-threatening and serious medical conditions (like choking, shock, profuse bleeding, respiratory and cardiac arrest, etc.). The EMD program helps dispatchers identify true life-threatening medical conditions;
- h. *identifying which medical conditions constitute high levels of medical urgency that require more sophisticated and complex response configurations*. These are tailored for each municipality depending upon the types of resources available and the involvement of local medical oversight in assisting with the development of response configurations for various levels of emergency situations. These decisions are based upon the information available to the dispatcher at the time the call is received and require strict adherence to the approved EMDPRS;

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- i. *appropriately configure responses to identified medical need;*  
Again, these are based upon the proper use of the EMDPRS by the EMD and the application of locally developed response configurations and modes by the dispatcher and
- j. *identifying the EMD as the "First of the First Responders;"* It was long believed that patient treatment began when the pre-hospital care providers arrived at the scene. With the advent and advancement of EMD principles and practices it is now an accepted fact that patient treatment can begin the moment the dispatcher answers the request for EMS via telephone assisted first aid, and in more serious cases, CPR choking and childbirth instructions. This makes the EMD a true "first responder" by providing early treatment prior to the arrival of dispatched medical resources.

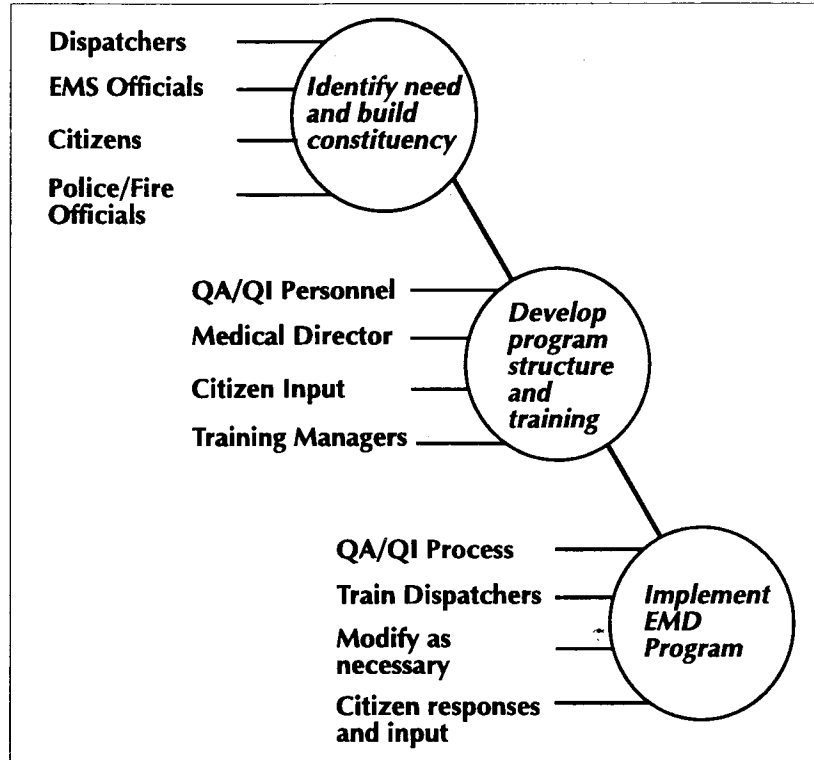
## C. The Sequence of Implementation for EMD Programs

This section is intended to serve as a sequential guideline for activities that must be completed to implement an EMD program. All administrative and advisory functions must be established and in place prior to implementing the EMD program.

- 1. **Implementing an EMD program.** Steps required to implement an EMD system and corresponding time line to plan for:
  - a. *Prior to Implementation*
    - 1) **Identify need.** At some point prior to starting the process of establishing an EMD program, the need for the program has to be identified.
    - 2) **Build constituency.** EMS officials, police/fire officials, citizen groups and dispatchers should be informed of the need for (and purpose) of an EMD program. By building this support, you help to ensure its success.

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*Figure 1- Prior to Training*

b. *Month One*

- 1) Identify and select EMD program medical director, dispatch QA/QI personnel and advisory committee members and orient them to their roles in EMD programs.

c. *Month Two*

- 1) Guidance committees identify goals and objectives of the EMD program.
- 2) EMDPRS is selected by the guidance committee with the written approval of the medical director, conforming to the identified goals and objectives.

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d. *Month Three*

- 1) Acquire the selected EMDPRS.
- 2) Orientation about the EMD program for all relevant governmental or municipal personnel, EMS personnel (Field responders, supervisory, administrative) and communications managers, administrators, and guidance committee members should be completed.
- 3) Begin establishing response configurations for the EMS system.

e. *Month Four*

- 1) Develop QA/QI program for employee evaluation.
- 2) Ensure all guidance committee functions, QA/QI mechanisms, continuing education programs and other administrative functions are established prior to commencing EMD training.

f. *Month Five*

- 1) Arrange, schedule and conduct all prerequisite or pre-EMD training programs such as CPR training or emergency medical operations orientation, first responder training (as identified) or other classes identified as needed for EMD dispatch personnel.

g. *Month Six*

- 1) Arrange, schedule and conduct EMD training program for all communications personnel. Ideally, other personnel (including guidance committee members, program management members and the medical directors) should attend appropriate courses so they understand how the EMD program functions.
- 2) Implement the EMD program in the communications center using the EMDPRS selected for the program.
- 3) Provide for a public education component to orient the population served by the new EMD program.

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h. *Month Seven*

- 1) Begin performance evaluation of EMD cases according to the QA/QI program.

i. *Month Eight*

- 1) Initiate the continuing dispatch education program (CDE).
- 2) Begin dispatch feedback mechanisms and performance remediation processes.
- 3) Conduct orientation of ancillary public safety communications centers in the geographic area.

j. *On-going*

- 1) Continue to gather and record data relative to the effectiveness of the EMDPRS and evaluate the impact of the EMD program on the delivery of Emergency Medical Services.
- 2) Document continuing dispatch education (CDE) for EMDs and maintain certifications.

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<b>Month 1</b>	<b>Select/Orient medical director, program director and advisory committee</b>
<b>Month 2</b>	<b>Advisory committees select EMDPRS and Medical Director reviews and approves medical content of the EMDPRS</b>
<b>Month 3</b>	<b>Acquire EMDPRS and orient relevant personnel</b>
<b>Month 4</b>	<b>Develop QA/QI program and ensure all advisory committee functions, administrative functions and continuing education programs are implemented</b>
<b>Month 5</b>	<b>Arrange, schedule and conduct all prerequisite or pre-EMD training programs</b>
<b>Month 6</b>	<b>Arrange, schedule and conduct EMD training program; implement the EMDPRS in the communications center</b>
<b>Month 7</b>	<b>Begin performance evaluation of EMD cases according to the QA/QI program</b>
<b>Month 8</b>	<b>Initiate the CDE program; begin dispatch feedback mechanisms; conduct orientation of ancillary personnel; provide for a public education component</b>
<b>On-Going</b>	<b>Study EMDPRS effectiveness and the impact of the EMD program on the whole EMS system</b>

*Figure 2 - Sample Timeline for EMD Program Implementation*

### **D. EMD Program Medical Oversight**

It has long been recognized in the medical community that the consistent delivery of good medical care requires a system of ongoing quality controls. The components of medical oversight in dispatch include observation and evaluation of dispatch and analysis of dispatch data. Medical oversight is not just having a medical director, it is a multifaceted process performed by all those personnel in the Department that indirectly influence or directly affect patient care.

1. **First Level of Quality Assurance.** The first level of quality control must be at the field level. It is the responsibility of the EMS provider agency itself, in this case the EMS Communications Center, to police the quality of medical care that is provided. This is done at the direction of the



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Medical Director. There is no other agency or entity that can do this effectively, because it means monitoring each call as it comes in and having the authority to make meaningful and appropriate decisions. Activities such as telephone care rendered by EMDs, must be observed for compliance with (or deviation from) defined standards.

2. **Second Level of Quality Assurance.** The second level of quality assurance must be at the administrative level. The EMD program's QA Unit should review EMS reports or other recordings of patient care to compare performance against medical standards of practice. Through this administrative quality control, trends and patterns of telephone patient care can be systematically recognized. When trends and patterns are identified that do not conform to defined policy or procedure, recommendations can be made for system adjustment.
3. **Third Level of Quality Assurance.** The third level of quality assurance must come from the management level. The EMS manager must direct and coordinate the elements of medical oversight and be responsible and accountable for the entire medical oversight process in dispatch.
4. **Quality Assurance Identifies Deviations from Standard Practice.** All three levels of quality assurance exist to identify deviations from standard medical practice. They also exist to provide positive reinforcement when medical policies, procedures, and practices are carried out appropriately. Given the size and complexity of both the supervisory and administrative tasks required for a well functioning EMD program it is unreasonable to expect a single individual to accomplish both. In order to do either, the responsible individual at each level must have sufficient emergency medical dispatch knowledge and authority to effectively carry out this responsibility.
5. **Involvement of Working Managers/Supervisors.** The majority of Medical Dispatch centers have consistent involvement from working managers/supervisors who have clearly defined administrative authority and function. This is an absolutely essential element of medical oversight and safe practice for ensuring the adequacy of dispatch and quality of patient care. Throughout this country, dispatch supervisors handle an entire litany of responsibilities. These are focused solely on dispatch and communications oversight that can be appreciated to their fullest extent only when, as dispatch administrators, they are able to lend their fullest attention to the dispatch operation on all shifts, interacting and guiding all personnel for which they are responsible.

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6. **Liaisons to the EMS Community.** Shift supervisors should operate as daily liaisons with the communications directors and the EMS community. They operate as problem-solvers, call-evaluators, and participate in the quality assurance process as peer leaders in communications. In most systems, a dispatch supervisor is designated and assigned to each shift and has delegated responsibilities as determined by their department.
7. **Differences Between Dispatch Supervisors and Field Supervisors.** The essential difference between dispatch supervisors and field supervisors is their primary dispatch and communications support and oversight focus. Their sole purpose is to insure compliance with defined departmental and medical dispatch policy, practice, and procedure in objective ways that should be tabulated and quantified.
8. **Requirements for a Medical Director/Medical Oversight.** The EMS physician is responsible for the provision of education, training, protocols, critiques, leadership, testing, certification, de-certification, standards, advice, and quality control through an official, authoritative position within the pre-hospital EMS system.
  - a. EMD programs require physician medical directors because EMD is a medical program. The provision of emergency medical dispatch services (in some areas) has been defined as an advanced life support level service and thus requires the involvement of physician medical oversight. This requires medical direction, management and accountability for the medical care aspects of the EMD program, including participation in the direction and oversight of the training of the EMD, development and monitoring of both the operational and the EMDPRS systems, participation in the EMD program evaluation and directing the medical care rendered by the EMDs.
  - b. EMS provider management must be intimately involved and should assume a leading role in EMD program development. Given that the resources the EMDs are going to be responsible for managing, and given that the dispatchers often work for a separate agency than EMS specifically, EMS must play a major role in developing the EMD program oversight committees, coordinating communications between EMS and communications agencies and facilitating the involvement of medical oversight to assist in the training and quality assurance of EMS related activities in communications.

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## **9. Selection of the Medical Director.**

- a. The medical director should be a local EMS physician who works closely with personnel in the EMS system; if possible, the director should be the same medical director as for the other parts of the EMS system or the ALS medical director. The medical director should be someone who has intimate knowledge and contact with the local EMS system.

The medical director is not usually involved in the personnel actions of a communications center. This depends, however, on how the local system is designed. However, *the medical director must have authority to suspend (temporarily) any emergency medical dispatcher personnel from further activity as an "emergency medical dispatch practitioner" when that EMD's medical activities/actions do not meet satisfactory performance levels, pending further administrative review.*

- b. The medical director should have a written agreement specifying responsibilities and relationship to the total EMD program. The medical director should be an individual with the available time to devote to assisting in the development and management of the system.

## **10. Orientation of the Medical Director.**

- a. Orientation should include what the medical director must know about the EMS system and the EMD program. It must provide information specifically related to the medical director's function within the communications center and the EMD program.
- b. The medical director should be involved in all aspects of program planning and implementation. This requires that the medical director become familiar with the concepts and philosophy of the EMDPRS proposed for use within his dispatch center. This information is often new to the medical director and must be incorporated into their orientation. The medical director needs to understand the proper use of human and material resources, specifically how they must be incorporated in the development of specific medical interventions for use by the EMD personnel.

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## **11. Role of the Medical Director in the EMD Program.**

### **NOTE:**

The Medical Oversight Physician is ultimately responsible and accountable for the medical aspects of the EMD program. This takes several forms, from approval of the EMD program's medical content to full participation in the development and management of the EMD program. This includes: direction and oversight of EMD training, development and monitoring of operational use of the EMDPRS systems, participation in the EMD program evaluations and directing the medical care instructions and information provided by/to EMDs (adapted from the National Association of EMS Physicians position paper on EMD).

- a. The medical director assists the EMD guidance committee in designing predetermined emergency responses and modes. EMDPRS design is based on answers to the following questions:
  - 1) Will time make a difference in the outcome?
  - 2) Will time be reduced by use of the "hot" response mode (ERM; going "hot" or "lights and sirens")?
  - 3) Will time be reduced more by using resources closer to the victim in "cold" mode than by using a more distant resource in "hot" mode?
- b. The medical director helps the EMD guidance committee establish Emergency Response Configurations. The configurations are based on answers to the following questions:
  - 1) What resources are available in our community?
  - 2) How can we configure our resources for the most effective and efficient use?
- c. Response configurations are set up by the medical director and/or the EMD guidance committees through discussion of the need for multiple response configurations and changes to the response configurations.

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- d. Initial response configurations and modes within an EMD program often reflect the most conservative application of the EMDPRS. Specific coding and data elements of the particular EMDPRS can then be applied to the initial response configuration scheme. With on-going case review and quality assurance and improvement measures in place, response configurations can be refined to represent the most applicable response configurations and modes best suited to that locale. This is ultimately determined by local medical oversight in cooperation with EMS administration with recommendations from the oversight committees.
- e. Development of tiered responses is generally the responsibility of the guidance committee. A "tiered response" is when you have a first responder along with a BLS (or ALS) unit, or an ALS unit may be called in by either of the two lower level response units. Tiered responses simply denote that there are various levels of care available for selection and dispatch by the EMD. The medical director should participate in the development of these responses.
- f. The medical director is responsible for the approval of the EMDPRS and is directly responsible and accountable for the review and approval of its medical content. The EMD medical director and the EMD guidance committee are responsible for the approval of the response configurations.

## **12. The EMD Program Director.**

- a. What is the role of the EMD program director?

It is the role of the EMD program director to organize and coordinate all activities surrounding the planning and implementation of the EMD program. This individual usually serves as the chairperson of the EMD guidance committee.

- b. What are the EMD program director's responsibilities?

The EMD program director ensures that all members of the EMD program development team including the medical director fulfill their responsibilities as assigned. Subsequent to development and implementation, this individual will have the ongoing responsibility to ensure the guidance committee remains intact

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and operational and that all EMD activities from training to quality assurance are carried out in the most efficient and effective manner.

- c. Who is the EMD program director?

This is based on local needs and resources. The person chosen to fill this position must have the skills and abilities required to fulfill the roles and responsibilities of the position. Sometime the chief of the telecommunications agency providing EMD call reception becomes the EMD program director, while in other cases it could be the EMS program manager.

Regardless of who is chosen to be the EMD program director, this person is involved in EMD program development because he or she will have day-to-day responsibility for supervision of EMD personnel.

## **13. EMD Committees.**

- a. At the same time the EMD medical director and EMD program director are selected, an EMD guidance committee must be selected. This team is composed of representatives of all interested entities that are (or will be) involved in the EMD program.
- b. The EMD guidance committee should be composed of the following:
  - 1) the **EMD program director** who chairs the committee because he or she is responsible for organizing and coordinating all activities surrounding the planning and implementation of the training program;
  - 2) the **EMD medical director** who is ultimately responsible for the medical aspects and content of the EMD program;
  - 3) the **EMD administrator** because EMD is an extension of EMS delivery;
  - 4) the **communications center manager** who is responsible for actual day-to-day operations of the communications facility;

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- 5) the **QA/QI personnel** responsible for developing and maintaining an agency's quality assurance program;
  - 6) a **representative of on-line telecommunicators** who will operate within the EMD program;
  - 7) a **representative of EMT/Paramedic responders** who will receive dispatches from or be dispatched by the EMDs.
  - 8) the **Training/Continuing Dispatch Education personnel** who are responsible for conducting initial telecommunicator training, EMD training and CDE course delivery and maintenance;
  - 9) **labor representatives** who will ensure that new procedures and/or policies do not conflict with existing labor agreements;
  - 10) **representatives of Police, Fire** or other EMS or Communications Agencies that are affected by the new EMD program and
  - 11) **other interested entities** as required by local configurations.
- c. The EMD guidance committee members will assist each other in the development of all components in the EMD program. By involving all affected disciplines from the beginning, the program will be more complete and comprehensive.
- d. The EMD guidance committee evaluates and guides the activities of the EMD program and of the Quality Assurance program. The committee should meet on a regular basis, allowing for objective monitoring of dispatch activities.

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- e. The EMD guidance committee should have, at a minimum, two subcommittees to assist it in collecting and analyzing data and providing reports to the full committee. The subcommittees are:

- 1) **Quality Assurance Subcommittee.** The QA committee provides feedback to QA personnel about the types of information, data and QA methods that are necessary for the QA process(es) of the EMD program. This committee should report directly to the EMD guidance committee chairman (the EMD program director).

This committee will also provide ongoing review of all medical components of the EMD program to ensure the delivery of quality medical service. The EMD program medical director should therefore be a member of this subcommittee.

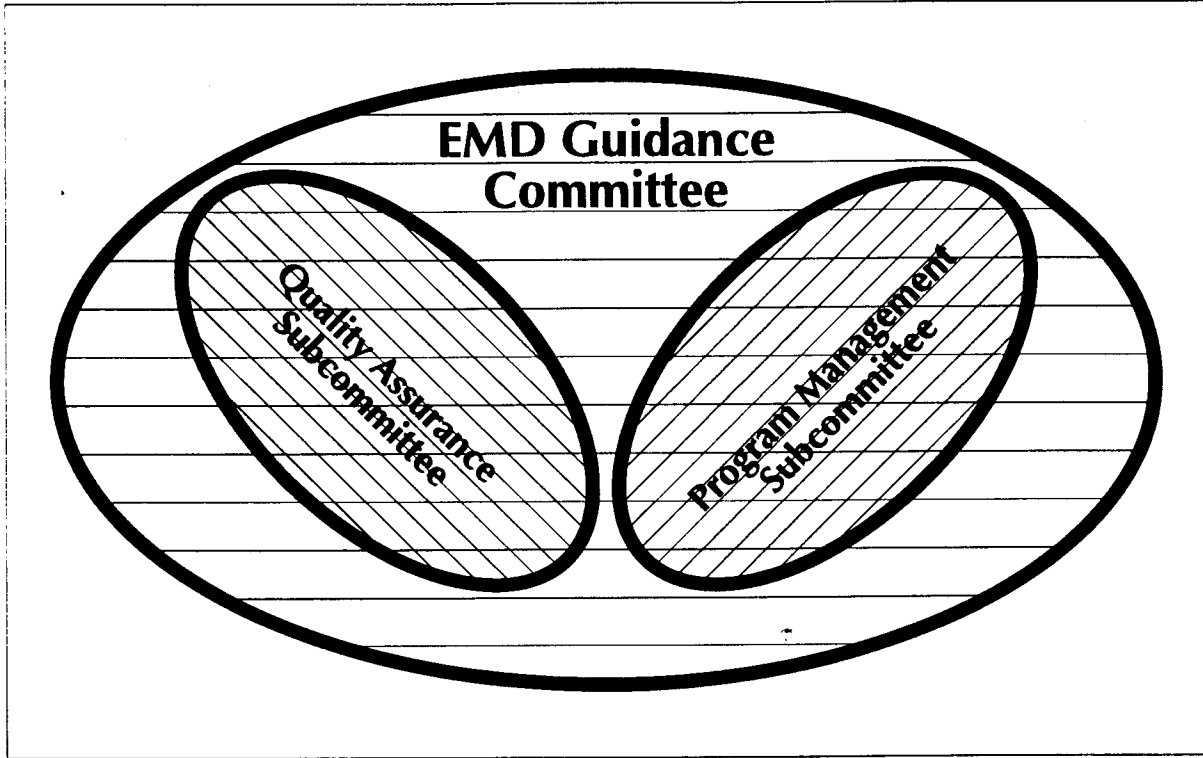
- 2) **Program Management Subcommittee.** This committee is staffed by line supervisors, mid-level managers and other management personnel. This subcommittee is responsible for management issues and for reviewing program supervision. It will also act as the liaison between the full EMD guidance committee and line personnel on operational issues.

- f. The EMD guidance committee should determine if other subcommittees are necessary and create them as required. If a new subcommittee is created, the EMD guidance committee is charged with assigning it roles and responsibilities. The EMD guidance committee should also recognize the value of "ad hoc" subcommittees that are used to address special needs as they arise.



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*Figure 3 - EMD Program Committees*

## **E. Selection of the Emergency Medical Dispatch Protocol Reference System**

The EMDPRS is selected by the EMD guidance committee, with its medical content being approved by the medical director.

1. **Important concepts and rationale for selection of EMDPRS.** Following are some questions you need to ask yourself when deciding on an EMDPRS for the local community.
  - a. Does it provide a specific set of actions to be undertaken in a specific order?
  - b. Does its medical content and design include response configurations that make sense and are appropriate for the local community?

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- c. Does it allow for organized and uniform methods of recommending and making changes? Remember, minor changes to the content, order or presentation can change the outcome of an event.
- 2. **Three major parts of the EMDPRS.** There are three main areas to an EMDPRS card. These areas are:
  - a. medical protocol for interrogation based upon medical priorities and symptoms;
  - b. initial response levels pre-set and field tested and
  - c. post-dispatch and pre-arrival instructions (including scripted medical instructions - aka "Protocols").
- 3. **About EMDPRSs.** All EMDPRSs are medical protocols, used for the interrogation of callers requesting emergency medical assistance and are based upon medical priorities and symptoms. EMDPRSs include initial response configurations that are pre-determined and field tested for applicability to the local community. They also include post-dispatch/pre-arrival instructions (including scripted medical instructions aka "Protocols").

EMDPRSs tend to differ in the following areas:

  - a. different coding systems;
  - b. different types of protocol construct and design.
- 4. **Sources for obtaining EMDPRSs.** Where do you find EMDPRSs? They can be obtained from any number of sources. Several of the most common sources are listed in Appendix C.
- 5. **What to look for when selecting an EMDPRS.** The EMDPRS you select must adhere to all known standards; local, national, American Society for Testing and Materials (ASTM), National Academy of Emergency Medical Service Physicians (NAEMSP) and other professional organizations. As a minimum the EMDPRS must provide the following:
  - a. a written system of "cards" that can be used by the EMD;

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- b. a written, reproducible document in a uniform format that is based on medical and administrative protocols. This includes protocols that direct EMDs to complete a full, programmed interrogation that gathers caller information and pairs it with preset problem groups to determine the appropriate response level;
- c. a set of systematized caller interrogation (key) questions. The key questions obtain the minimum amount of information necessary to establish the correct level of medical response, establish the need for pre-arrival instructions, and provide responders with adequate patient and incident information;
- d. a set of systematized pre-arrival instructions that include protocols that predetermine vehicle response mode and configuration based on the dispatcher's evaluation of injury and illness severity as determined through the key question interrogation. The protocols must reflect a given agency's varied ability to respond, ranging from single unit volunteer squads to multiple level response and
- e. an established quantitative coding system for quality assurance.
- f. An EMDPRS should also include:
  - 1) a mass casualty plan for notification and operation in a disaster situation;
  - 2) a directory of emergency response and information resources;
  - 3) a written description of the communications system configuration for the service area, including telephone and radio service resources and
  - 4) a record keeping system, including report forms or a computer data management system to permit evaluation of EMD compliance with the EMDPRS, evaluation of protocol effectiveness and timeliness of interrogation and dispatch.

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6. **Problems in the Development/Implementation of an EMDPRS.** When developing an EMDPRS, you need to keep in mind the following things (adapted from ASTM 1258-90, Section 6).
  - a. *EMDs function in a blind environment.* As such, you need to develop questions and scripts that allow the EMD to most effectively perform his/her duty as an outside observer, not the person actually performing an action. Things must be done differently when functioning over the telephone.
  - b. *EMDs need a written, consistent protocol.* EMDs need to have a protocol that they can have, *on hand*, to read to callers. This can be a hard copy or, as in the case of some enhanced systems, computer-based dispatch. The protocols need to be written consistently in terms of structure, reading level, fonts, etc.
7. **The medical director is responsible for the formal review of the EMDPRS.** The medical director reviews all EMDPRSs (proprietary, government or self-developed) for the appropriateness of its medical content to the local community and its ability to measure accuracy in the system and see improved effectiveness and efficiencies.

## F. Modifying the EMDPRS

1. **Who can make changes to the EMDPRS?** Each system has different policies and procedures relative to changing the EMDPRS. Each agency should develop its own policy, in accordance with local and state guidelines and regulations and in conjunction with the supplier of the EMDPRS for making changes. These policies should be strictly followed.
2. **How are changes made to the EMDPRS?** Any changes that are identified should be based on verifiable data and show *patterns* of error over time, not based on isolated incidents. If the protocol was not followed and the error was made as result of this omission, no change should be recommended.

However, if the EMDPRS was followed according to the agency's identified performance standards **and** a pattern of similar mistakes is identified over time, then a recommendation should be made to the guidance committee for a change.

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A recommended change should include all data that the change is based upon, all taped cases demonstrating the error occurring, and recommendations for change to reduce the likelihood of error in the future.

Changes should not be made based upon isolated incidents and without sufficient data to back up the recommended change. There is a tendency to modify a protocol before practices have been examined. This is a major error in protocol modification. All modifications should be approved by the medical director, the EMD guidance committee and the supplier of the EMDPRS before any changes are made. These changes, if made, should then be tracked carefully **for at least three months** to determine appropriateness of the change and the effect of the change on the error rate.

### **3. When should changes be made to the EMDPRS?**

A change should be made when it is determined to be in the best interest of the system and an improvement in protocol accuracy, specificity and patient care issues. Changes are also made when new information becomes available that make protocols out-of-date when compared to current medical science.

### **4. Legal implications of being the medical director.** The medical director has the responsibility to ensure that all of the medical aspects of the system are appropriate and applicable. S/he indicates, either by vote or signature, that s/he has reviewed and approved the protocols. As long as EMDs follow the system as is identified in the performance standards developed by the agency, s/he (the medical director) will support their decisions.

If it is determined that errors or omissions were made by dispatchers due to the lack of oversight or involvement of the medical director, after his/her acceptance of that responsibility, the medical director could conceivably be held liable for failing to maintain and monitor a safe medical operation under his/her purview.

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5. **Legal implications of making changes to the EMDPRS.** Changes made to the EMDPRS, with or without written approval by the medical director, have specific impact on the medical director. He or she could conceivably be held liable for its content, possibly resulting in loss of his/her license. Another consideration is that without data to support change decisions, and valid scientific medical information with which to base these decisions, the danger to the public increases.
6. **Rationale for requirement of approval of the EMDPRS by the medical director.** The Medical Director approves the medical portions of the EMDPRS. There are three main reasons for this:
  - a. EMD is an extension of the local area's EMS system and therefore a medical program. As a medical program, it requires medical direction in an effort to best protect the public.
  - b. The medical director provides the agency with required medical direction and support for the new medical dispatch program.
  - c. The medical director has the medical knowledge, experience and ability to ensure medical appropriateness of the EMDPRS, thereby reducing the risk of litigation.
7. **What constitutes written approval?** Written approval constitutes a written document stating that the medical director has reviewed the EMDPRS and its associated training and management system and has approved its medical content and appropriateness for the local community.

The medical director also may state that so long as the dispatchers follow the system as it is, their (EMD) decisions will be protocol driven and therefore have the physician's approval. Any deviation from protocol that is undertaken by the dispatcher, resulting in damage to a patient, will not be the fault of the medical director. This assumes that proper feedback and remediation practices have been pursued to correct deficiencies within the system and with individual dispatchers.

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## **G. QA/QI Personnel, Policies and Procedure Recommendations**

1. The importance of the medical presence in dispatch centers has created the need for medical quality assurance positions (QA/QI). This group becomes the focus for ongoing quality assurance activities and often functions as initial "EMD" trainers, Continuing Dispatch Education (CDE) leaders, and Medical Dispatch Review Committee participants. In essence, these QA personnel provide for the formal presence of medical oversight and quality assurance activities in dispatch.
2. Current quality assurance standards require a formal review of 5%-10% of the yearly medical call base. This process should be expanded to include all EMD activities.
  - a. The QA/QI activities primarily consist of on-line case review, data evaluation and feedback reporting. The QA/QI personnel will make ongoing recommendations directly to the oversight committee for evaluation and action based on its findings.
  - b. Creation of a formal program for monitoring dispatch decision making is an important part of QA. The effects of dispatch on field operations can be assessed, as can dispatchers' adherence to protocol.
  - c. The best means of dispatch system and protocol evaluation, validation, and dispatcher performance monitoring is through on line random tape review by trained dispatch QA personnel. This gives the QA/QI personnel pertinent information regarding protocol compliance and the effects of noncompliance on the system. It is helpful to have a system wide QA program that integrates all patient related data into the process, and each must be evaluated with the proper technique and focus.
  - d. *QA/QI should also be used to ascertain good EMD behaviors as well.* It can provide a means of identifying good practices and rewarding them, and can serve to identify examples of good EMD practice for use in training. It is not to be used strictly for identifying "bad" behavior.

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3. A comprehensive program for managing the quality of care includes not only quality assessment but quality assurance risk management activities. These are designed to assist medical directors, dispatch supervisors, and Emergency Medical Dispatchers in modifying practice behavior found to be deficient by quality assessment, to protect the public against incompetent practitioners, as well as to modify structural, resource, or protocol deficiencies that may exist in the medical dispatch system.
4. These guidelines should be utilized in any medical dispatch system, whether private or government operated and whether conducted by medical directors, administrators, supervisors, peers, or governmental authorizing agencies.

Refer to the *Guidelines for Quality Assurance* from the Council on Medical Service of the American Medical Association for detailed information on risk management issues.

## **H. Helpful Hints to EMD Program Implementation**

**Aids to EMD Program Implementation.** Several things can impede the implementation of effective EMD programs. By following the scenarios/procedures described below, EMD programs can succeed.

1. *Adequately establish a management structure and consistently hold guidance committee meetings.* You may want to consider having at least two meetings/month...with perhaps a minimum eight item action-list.
2. *Implement the QA/QI process and its accompanying data gathering/analysis components.* Failing to continually improve a program will ultimately end in EMD program failure, through an inability to properly modify itself to meet the changing environment in which the EMD program operates.
3. *Establish training budgets and training schedules* that cover personnel who are in training (remember that you need to have someone take their place while trainees are in class), overtime expenses for prerequisite training (while the potential trainee takes prerequisite training like CPR, etc.) and while personnel attend their initial EMD training.



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4. *Properly determine the most efficient and effective origin/source of EMD service.* Should police, fire or separate medical dispatchers provide the medical service? You need to look at things like the work/call load of each potential EMD service source and place EMD responsibilities with the service taking the least calls to avoid overload.
5. *Adequately orient all affected field personnel.* Unless you include all affected personnel in the implementation and decision-making processes, your program could fail. These employees probably will not "buy into" the whole program. They could feel like things are being done to them, rather than by them, and resist implementation.
6. *Implement a Continuing Dispatch Education (CDE) program.* The quality assurance personnel hear patterns of problems in the EMD process and develop CDE curriculum based on their evaluation of cases. The thirty-two chief complaint types, found in Appendix A of this guide, are a good source of ideas for CDE.
7. *Abide by training components recommended by the EMDPRS source.* If you are using an outside source to assist in the design and use of an EMD program, you need to listen to their recommendations. The structure that they have established and are modifying for your use is based on their experience with their systems. Listen to them.
8. *Provide representation on all committees from all levels.* This means including personnel from all hierarchical levels of your organization on committees and in the decision-making processes so that no group feels left out of the process.

## **I. What Does EMD Training Provide?**

Initial training must adhere to any current standards that may exist within the local community and/or state. Initial training must be a minimum of twenty-four hours exclusive of any existing training prerequisites of BLS (CPR, etc.), basic telecommunications, and disaster preparedness. At minimum, at least twelve hours must be spent covering the specific EMDPRS concepts and scenarios.

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Each training course shall be a minimum of twenty-four (24) hours. Pilot tests of this curriculum indicated that the course can be completed in twenty-four hours. However, pilot trainees and instructors stated they would have preferred more time for instruction. For this reason we recommend that you examine some elements of this curriculum for Continuing Dispatch Education (CDE) credits. One section of the national standard curriculum that lends itself to this approach is the module describing the thirty-two (32) chief complaints. This section is a rich source of CDE topics. CBT (computer based training) courses will require a different number of hours for completion. However, each course shall include the following concepts to meet the minimum training requirements:

- a. telecommunication skills (essentials, instruction and review);
- b. Emergency Medical Dispatch specific telecommunication skill instruction;
- c. medical/legal instruction specifically related to dispatching;
- d. priority based, dispatch specific medical instruction and
- e. practical sessions and role playing.

At the completion of the training program all participants shall be able to demonstrate a greater understanding of basic telecommunications skills. Trainees will also be able to demonstrate an understanding of the psychology of pre-arrival instructions, how to verbally direct callers through medical emergencies, how to deal with difficult or hysterical callers and demonstrate knowledge of medical-legal aspects. Finally, trainees will be able to discuss responsibilities of emergency medical dispatchers, understand and show proficiency using the local EMDPRS, and demonstrate pertinent and applicable knowledge relative to Emergency Medical Dispatching.

On-the-job training (OJT) components should also be examined as a possibility for training at your agency. Local advisory committees can balance training needs with the needs of the community and determine what OJT components are practical and applicable for your needs. Parts of the National Highway Traffic Safety Administration (NHTSA) curriculum are adaptable to the OJT environment.

This NHTSA curriculum is written in a format that presents the **content** of a training program, not necessarily the **format** for conducting that training. You are permitted to present the material in this curriculum in any format your local

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guidance committee approves. The only caveat is that all material in this curriculum must be covered (at a minimum), and that the recommended minimum classroom hours must be met. Within this context, the training program you set up should be acceptable.

1. **Who should be trained?** The initial training requires the attendance of the following individuals as a minimum:
  - a. all line dispatchers, full and part time;
  - b. all dispatch supervisory and quality assurance personnel;
  - c. all administrative personnel responsible for the communications operation;
  - d. all instructor candidates for the EMD program (they must attend all courses along with the QA personnel);
  - e. Medical oversight, EMS and Communications administration, EMS field supervisors, Field Training Officers;
  - f. anyone else who may be involved in the advisory committee structure, dispatcher training and/or orientation of EMS field personnel, ancillary communication employees and/or communication center employees and
  - g. anyone else the advisory committee determines to be appropriate.

The implementation of the EMD program touches nearly every aspect of pre-hospital care provision from field personnel to top administration. The more training and orientation that can occur, throughout the organization or system, the smoother the implementation will be.

2. **Advanced Instruction.** Training for the EMD specialty provides advanced instruction in two aspects of EMS communications:
  - a. management of the EMS resources and
  - b. provision of medical and non-medical assistance through the telephone until trained assistance can arrive.

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3. **Pre-Arrival Instructions.** Pre-arrival instructions are a key aspect of the EMD program. They are not optional and must be included in any EMDPRS.
4. **Standard Elements of EMD Practice.** ASTM Standard F1258-90 establishes the following as elements of EMD practice:
  - a. obtains specific information about the incident (location, number of victims, etc.);
  - b. obtains specific medical information by asking key questions of the caller;
  - c. accurately prioritizes each medical response using pre-determined response levels;
  - d. determines the need for pre-arrival instructions;
  - e. provides pre-arrival instructions if needed;
  - f. alerts appropriate response units based on the EMDPRS;
  - g. relays information to the response units as needed and
  - h. monitors communications about the incident for the purpose of assisting responding agencies.

## **J. Prior to the Commencement of EMD Training**

Before you begin training, have the following been accomplished?

1. Check the list of requirements to be met prior to commencement of EMD training:
  - a. Have you selected and oriented a medical director?
  - b. Have you selected and oriented dispatch QA/QI personnel?
  - c. Have you selected and oriented a guidance committee?
  - d. Has the Guidance Committee identified the goals and objectives of the EMD program?

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- e. Have you selected an EMDPRS (by the guidance committee with the written approval of the medical director) that conforms to the identified goals and objectives?
  - f. Have you acquired the selected EMDPRS?
  - g. Have you oriented all relevant governmental or municipal personnel, EMS personnel (Field responders, supervisory, administrative), communication center managers, administrators, and oversight committee members about the EMD program?
  - h. Do you have a QA/QI program for employee/program evaluation?
  - i. Have you ensured that all guidance committee functions, QA/QI mechanisms, continuing dispatch education programs and other administrative functions are established and available prior to the start of EMD training?
  - j. Have you arranged, scheduled and conducted all prerequisite training programs such as CPR training or emergency medical operations orientation, first responder training or other classes for dispatch personnel that trainees need prior to attending this training?
2. Check the list of requirements to be met prior to commencement of EMD program operation. This is the same as above, but it requires that all training and orientation functions be complete and continuing education and feedback mechanisms be in place.
3. Check to see you've met the goals and objectives identified by the guidance committee.
- a. Acquire the selected EMDPRS.
  - b. Ensure that all EMD guidance committee functions are established.
  - c. Ensure the QA/QI mechanisms are established and in place.
  - d. Ensure continuing dispatch education programs are established and identified.

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- e. Ensure administrative functions are established and in place.

## **Summary**

Part One of this Manager's Guide has introduced you to methods and recommendations for implementing EMD programs. You've learned how to select an EMDPRS, received hints to help you implement EMD programs and you have received some recommendations for establishing administrative and quality assurance/improvement structures. In Part Two of this guide, you will receive information and recommendations for establishing, designing and developing the training component to your EMD program.

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## Part Two: "Now That I've Established an EMD Program, How Do I Train My People?"

### A. Introduction

Once you have set up an EMD program, it becomes necessary to train people to operate in it. Establishing training programs is complicated. You need to consider many variables, some of which we discuss here. This section does not provide a discourse on how to design training courses. Instead, we have designed it to give you an overview of the major concepts and variables that you will need to consider when establishing training programs.

### B. Establishing a Training Program: Course Considerations

1. **Introduction.** The *National Highway Traffic Safety Administration (NHTSA)* has identified minimum training requirements for EMDs. NHTSA has also developed a course that can be used to help you develop training courses which meet local needs. This course is available for your review, but *it is not designed for use as a training document until it is made to comply to local requirements and is reviewed and approved by the medical director.* You may get a copy of the NHTSA course by contacting NHTSA. The title of the course is ***National Highway Traffic Safety Administration: Emergency Medical Dispatch, National Standard Curriculum.*** Commercial sources of EMD training are also available.
2. **About the NHTSA Curriculum.** The NHTSA curriculum is specifically designed to address the preparation of EMDs in performing EMS-related telecommunications functions. ***It does not include*** skills training in public safety dispatching or the use of telecommunications equipment.

The NHTSA curriculum is designed to be used to train public safety dispatchers in EMD-specific content and to provide the medical knowledge, skills and competencies required to round out the EMS aspect of a dispatcher's repertoire. Specific performance objectives for each unit of the course are presented at the beginning of each unit lesson plan.

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Trainees who take the course must have completed basic telecommunications training - ***or at least be able to demonstrate competence in the required telecommunications skills*** - and agency approved CPR training prior to attending the course. EMD trainees must also be able to use the general telecommunications knowledge, skills and competencies that they have already learned.

3. **NHTSA Curriculum Goals.** At the conclusion of the course, the trainee should be able to:
  - a. state the role and responsibilities of an EMD;
  - b. handle message traffic in a prompt, accurate, courteous, and professional manner;
  - c. obtain from each caller the necessary information to dispatch appropriate resources in the appropriate response mode;
  - d. recognize and recall the emergency medical services resources available in the dispatch area, their capabilities and limitations, and their geographical locations and response areas;
  - e. allocate EMS resources properly in response to emergency medical needs;
  - f. assist persons requesting EMS response by providing appropriate initial emergency care instructions;
  - g. instruct callers in telephone CPR and airway management techniques using locally approved protocols and
  - h. understand dispatch specific medical information as outlined in the locally approved EMDPRS.
4. **How to Tell What Effective EMD Training Programs Cover.** Any effective training program should provide instruction in the proper handling of the four broad functions carried out by the EMD. Those four areas include:
  - a. receipt and processing of calls for EMS assistance;
  - b. dispatch and coordination of EMS resources;



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- c. provision of medical information and
- d. coordination with other public safety services.

You may want to compare other programs to the NHTSA curriculum. This way you can compare them for content. Remember the NHTSA program contains the minimum content of a training program.

## **C. The EMD Instructional Program**

1. **What Goes Into EMD Instructional Programs?** When establishing an EMD training program, the following should be considered:
  - a. course goals (what do you want them to be able to do?);
  - b. functions of the EMD *in the local area*;
  - c. course scope (what content should the course cover and how much?);
  - d. performance objectives to be met by the course (what specific things will trainees be able to demonstrate upon completion of the course?) and
  - e. the instructional strategy to be used (How do you plan to teach the course? What methods will you use?).
2. **Course Planning Considerations.** When you are planning a curriculum, there are many things that need to be considered. These include but are not limited to the following.
  - a. **Instructor Qualifications.** How would you qualify instructors for training? The NHTSA training program is designed to be delivered by one instructor, but the ideal situation is one instructor with one assistant.

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The instructor(s) for this course shall possess thorough knowledge of emergency medical dispatching and the working environment of public safety telecommunicators. Instructors selected for this course shall also have proven competency as instructors in other courses, have proficiency in the skills and concepts that are being taught in this course and shall have successfully completed a recognized EMD training course.

It is essential that the instructors for this course be capable of understanding, presenting and defending ALS level-Dispatch Life Support information. For the medical portion of this course, the instructor(s) shall have training, skills and experiences at the advanced Emergency Medical Technician (EMT) level (equivalent to EMT - Intermediate/ EMT - Paramedic). Alternately, the medical portion of this course can be taught by a critical-care trained physician, nurse or physician's assistant.

This high level of instructor qualification is due to the need for the instructor to facilitate trainee learning and understanding of the medical content of this training, and to facilitate their ability to interrogate and evaluate the information provided by callers. It is also required because trainees will need to be able to categorize caller information and appropriately assign predetermined response configurations and modes (adapted from ASTM standard F1552-94, section 5).

- b. **Trainee Qualifications/Prerequisites.** Who can take the training? When you are determining who qualifies for training, you need to consider:

- 1) trainee/mandatory prerequisites;
- 2) essential prerequisites and
- 3) recommended prerequisites (optional but nice to have).

Ideally, course participants will be from the same agencies; however, when this is not the case, participants will be expected to train with the EMD protocols from their respective employing agencies.

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Trainees should have competency in basic dispatch telecommunications and have successfully completed an approved cardiopulmonary resuscitation (CPR) course within one year prior to taking EMD training.

Trainees need not have previous emergency care training or experience, though such training and experience would be helpful to the prospective trainee of EMS dispatching.

- c. **Other prerequisites** for trainees include:
  - 1) proficiency in reading and writing English;
  - 2) ability to speak clearly and distinctly on the radio and telephone;
  - 3) ability to function effectively in stressful situations and
  - 4) basic training in and orientation to public safety dispatching equipment and techniques.

## **D. Course Planning Considerations**

- 1. **How Do I Schedule My Courses?** When determining how to schedule courses you need to consider how to adapt the course schedule to the local area. You need to answer questions like "How will I handle losing my dispatchers to training? Do I have enough personnel to cover them in their absence? How will I handle pay?"
- 2. **How Long Should My Courses Be?** Minimum recommended course length is twenty-four hours. This recommendation is based on a written curriculum, however CBT curricula will require a different number of hours due to its unique structure and presentation method. Adding additional content to the NHTSA course materials will require modification of the allotted time frame.

The length of the course and the course schedule will depend on:

- a. the number of trainees;
- b. the training resources that are available and

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- c. the previous experience and knowledge levels of the trainees.
- 3. **What is The Optimal Class Size?** What is the maximum class size that your instructors can effectively handle? What is the maximum teacher-student ratio for effective learning for your locale?

No *specific* number can be determined due to differences among locales and their specific needs and concerns; NHTSA recommends, however, that the **maximum** trainer-trainee ratio during **lectures** be 1:24 and during **practical examinations** 1:12. These ratios were determined based on the high degree of interaction required by the course.

- 4. **Materials and Equipment.** What training material do I have or need? What types of equipment will I need for this course and what do I already have? Three types of training materials and equipment will be needed for EMD training courses. These include:

- a. ***Standard teaching aids;***

- 1) lectern;
- 2) chalkboard or whiteboard;
- 3) chart paper/newsprint and markers;
- 4) overhead, slide, and/or movie projector;
- 5) projection screen;
- 6) videotape player and monitor;
- 7) pointer and
- 8) other A-V aids, as required.

- b. ***Classroom Materials and Equipment (optional and optimal);*** For realism and learning reinforcement, trainees should be allowed to practice using equipment identical or similar to that of their dispatch center (if practical and available). This equipment includes:

- 1) telephone trainers (at minimum there should be a pair of working telephones in separate areas);

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- 2) radio dispatching console or mock-up;
  - 3) paging equipment;
    - a) each training site should at least have operating telephones (used to lessen eye contact between trainees/instructors during emergency simulations)
  - 4) What training texts would I need? Where can I get them? Should I use the NHTSA course or some outside vendor? Do they meet the standards set by NHTSA? You will need trainee and instructor textbooks and reference materials, including:
    - a) Instructor Guide (one per instructor);
    - b) Trainee Guide (one per trainee);
    - c) films, slides, overhead transparencies, and/or audio/videotapes to accompany lessons which support course learning objectives, as desired;
    - d) copies of all forms used by the EMD's facility (one set per trainee);
    - e) locally approved EMDPRS (one per trainee) and
    - f) standard emergency care reference texts (*First Responder* text may be most appropriate to the EMD).
- c. **Training facilities;** Where should I have the training? How should I lay out the rooms? Will I need "break-out" rooms? For the EMD curriculum, you will need the following:
- 1) conference rooms large enough to hold all trainees, instructors and related training equipment and
  - 2) "break-out" areas should be available to allow trainees practice space for use with scripted protocols, etc (optional and optimal).

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You may want to consider using a language lab. Language labs are useful because they allow trainees to practice call taking and language skills. Also, consider training in a room in the facility where trainees will work (familiarity with local equipment and surroundings, etc.).

All training rooms must be well lit and comfortable (air-conditioned or heated comfortably), with enough seats so that each trainee has a seat and table or desk on which to take notes. Flexible seating arrangements are best because they allow trainees to pair off for practice sessions, etc.

## E. Choosing Appropriate Course Content

1. **Who decides?** The medical director, EMS director and/or the EMD guidance committee(s) should jointly determine what parts of the course structure or content are locally inappropriate. These same personnel are responsible for assessing if course goals are relevant to the local situation.

The NHTSA curriculum contains the basic, minimum information required. Any course that is selected should contain, at a minimum, the same types of information. Any alteration to an existing course should be checked to ensure that it contains the same types of information as found in the NHTSA curriculum. *The NHTSA curriculum represents the minimum course content required for any EMD training program.*

## F. Customizing Courses for Local Needs

1. **Why Customize?** EMS dispatcher functions vary from locale to locale. This requires customization of training materials to meet the exact needs of each area. In general, you should:
  - a. review the **scope of the course** to ensure that it contains material appropriate to the local needs/audience (this should be accomplished before the course begins) and
  - b. **add additional units** if necessary that address the specific, unique local requirements or circumstances of the local area (this too should be accomplished before the course begins).

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2. **Be Careful.** *ALL OF THE MATERIAL/CONTENT AREAS IN THE NHTSA COURSE MUST BE ADDRESSED IN YOUR COURSE(S). YOU CAN ONLY REORDER OR ADD MATERIAL.* This does not mean that your context must be identical or in the same order. We understand that local medical, resource and organizational issues exist. We simply mean that all content **areas** must be addressed. When you add material to the course, you must be sure that it will help trainees attain the knowledge and/or skills required to meet the four functions defined for the EMS dispatcher. All changes must also be checked to assure that the goals of this NHTSA curricula are met. This is especially important if you choose to add an on-the-job training (OJT) component to your program.

You also need to consider your audience. All changes (and selections) need to answer the following: "What is the average reading-level of my trainees? Who are the people that will be taking my training? Are they experienced dispatchers or entry-level dispatchers?"

Another consideration is the local legal and medical environment. Changes must address: "What legal restrictions do I need to observe? Are there any special concerns for our area? What medical facilities and resources are available in my area?"

<b>NOTE:</b> Additional qualifications may be imposed by the Federal/State/Local governments. One that you need to be aware of is the Americans with Disabilities Act - ADA.
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## G. Assessing Trainee Achievement

1. **Who Is Responsible?** A good training course should incorporate methods for assessing trainee achievement. EMD Program Administrators and appropriate committee members (including the medical director) are responsible for development, validation and administration of all written and practical examinations. ***The instructor should not be asked to design the examination.*** This ensures consistent testing of the goals and objectives of the curriculum, regardless of who the instructor happens to be. All trainees will be asked to reach the same level of competence.

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2. **What Do I Look For When Assessing Trainee Achievement?** Trainees must demonstrate that they have attained the knowledge and skills taught in the course. While it is difficult to recommend a specific passing score, we think it responsible and reasonable to ask for a passing score of at least 85%. It is the responsibility of the course administrator to assure that trainees attain proficiency in each topic area before they proceed to the next area. Trainee requirements for completing the course are as follows:
- a. **Skills** - Trainees either pass or fail by demonstrating proficiency in all skills, not only on the final test, but also in each testing session of selected topic areas. Special remedial sessions may be provided on an "as-needed" basis.
  - b. **Knowledge** - Trainees must receive a passing grade, not only on the final test, but also on any tests of specific topic areas. Again, special remedial sessions may be provided as needed.
  - c. **Personal attitude** - Trainees must demonstrate conscientiousness and interest in the course. Trainees who fail to do so should be counseled while the course is in progress so that they may be given the opportunity to develop and exhibit the attitudes expected of an EMD.

**NOTE:** Personal attitude is a **very** subjective measure. Instructors need to document any behaviors that they may feel exhibit inappropriate attitude.

*If a trainee is asked to leave the training program, then documentation of inappropriate attitude and behavior will provide a measure of support should the instructor's decision be challenged in court.*

It may be necessary to confront the trainee (not during class) about their behavior to determine the reason for the inappropriate attitude.



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- d. **Attendance** - Trainees are required to attend a minimum 24 hours of training. This recommendation is based on a written curriculum, however CBT curricula will require a different number of hours due to its unique structure and presentation method. At the discretion of the instructor, trainees missing a lesson may demonstrate the fulfillment of all skills and knowledge covered in that lesson. Special examination sessions may be provided for trainees who miss tests for valid reasons (at the instructor's discretion).
3. **Additional Measures.** You should include assessments of subsequent dispatcher performance (on-the-job performance) by each trainee who has participated in the course as part of the ongoing process of training program evaluation. Reviewing trainee performance records allows you to assess the effectiveness of the training course.

## Summary

Part Two of this Manager's Guide has introduced you to methods and recommendations for developing training for your EMD program. You've been introduced to the NHTSA National Standard Curriculum and have learned what types of content are found in good EMD training programs.

Part Two has also provided you with some insights into developing instructional programs and has given you information regarding course planning. Choosing course content as well as customization considerations were also discussed. Finally, you learned about assessing trainee achievement.

Part Three of this guide will cover EMD program administration issues, including QA/QI. You will also be presented information regarding continuing dispatch education, certification and the basics of program evaluation.

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## **Part Three: "What Do I Do Now?"**

### **A. Conduct Orientation of Ancillary Public Safety Agencies in the Geographic Region**

Every ancillary public safety agency in the region that will be affected by the EMD program must be oriented to the purpose and effect of the program. Ancillary Public Safety agencies must be informed of the new functions of the EMDs, and it must be explained that the methods used by EMDs for dispatch or providing instructions will change. Any time a new program is implemented this orientation should be conducted so that the left hand knows what the right hand is doing.

### **B. Provide Public Education to Orient Service Population to the New EMD Program**

The public education program should focus on what the EMD program will consist of and how the EMDs will provide better service. In this way, the public becomes aware that they are being questioned by a dispatcher in order to determine which resources should be sent and to give the caller assistance until help arrives.

The education should not focus just on when to call 9-1-1 or other specific 9-1-1 education. The information should be EMD specific, to orient the calling public with information about how calls are processed and how instructions may be given over the telephone.

Multiple media sources may be utilized including direct mail brochures, public service announcements on radio and television, newspaper announcements, feature articles and editorials. Special feature human interest stories on local news and in the paper are particularly useful. School programs and videos also have been common avenues of public education.

There are a number of techniques to help individuals understand a particular topic and they all begin with a PLAN. A Public Awareness & Education Plan has many facets and following are some concepts which could be included in public awareness efforts.

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Regardless of the stage of implementation that your EMD program is in, it is important to educate the political influences in your area. These include council members, county commissioners, public safety agency officials, and the media.

If these parties were involved in the overall planning and conceptualization for the EMD program, then obtaining and maintaining their support is much easier as your system goes on-line or in the event that problems develop. Remember that EMD affects everyone in the community and it is their involvement and education that will make or break the success of your system.

In identifying your Public Information and Education Plan, some goals have to be set. Equally important is identifying your target groups.

**Who needs to be educated?** The media, the general public, including school-age children, public safety agency personnel such as dispatchers, paramedics/EMTs, fire fighters, patrol officers, all affected public safety departments and supervisors should be included.

**How can this education be accomplished?** Which advertising medium works best? Information flyers, brochures, bill inserts, posters, coloring books, activity books, mascots, balloons, telephone stickers, educational videotapes, public service announcements (radio and television), speaker's bureau, newspapers and publications should all be considered.

The avenues to facilitate your public awareness efforts are numerous. The key is just deciding what works best for your area. Will the local telephone company be responsible for any portion of your public awareness plan? Are funding resources available?

Some telephone companies will contribute their resources in providing public education materials. This may be in the form of bill inserts to be included in telephone bills, coloring books for the lower grade school levels, listing on the inside cover of the telephone directory that 9-1-1 is available and speakers to talk to civic club groups. Check with your local telephone companies and get them involved with this mutual effort.

If you have a funding source allocated towards public education materials, regardless of how large or small those funds are, make sure that you get the best "bang for the buck" out of those dollars. Your annual operating budget should include a line item for ongoing public education-type materials. These materials do not have to be expensive; however, they should be of the highest affordable quality and not easily outdated.

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Check in your area for an advertising federation or organization and solicit their help in launching a public awareness PUBLIC SERVICE effort. They can contact various media and print vendors who also have a PUBLIC SERVICE commitment, who may donate their time or reduce the normal price for their services. In this approach the creative talent and professional advice is usually given at no charge, and any of the ideas suggested can be implemented by incurring just the production costs. This avenue should yield a quality product which is timeless.

Television and radio stations all have public service directors who can be contacted and solicited for help in getting a public service announcement worked into their schedules. With enough notice, some television stations will help to produce a 30 second public service announcement spot, and as long as it is "generic," will make the spot available to the other local television stations.

Radio stations work more with scripts; however, once they understand the intended message, some will develop a public service message which can be played or read at regular intervals.

Local colleges, which include media relations or communications in their curriculum, can also be tapped to develop a public education plan as part of their course work. In addition to developing a lesson plan, some school districts may have the means to develop public service messages or an educational program on the proper use of the 9-1-1 system, which can be utilized throughout their networking system.

At the very least, these school districts can be instrumental in being a distribution point for public education materials. Set up a network of contacts and utilize them more than once during the school year. Also, time your distribution to their study curriculum when they cover health and safety topics and during special events, such as fire prevention month.

***When should the public be informed, and how often?*** There are numerous opinions on what works best and how often this should be done; once a year, only as the system goes on-line, quarterly, monthly, daily, etc.

The decision is not simple for a number of reasons. However, it is crucial that affected citizens be informed of the proper use of your 9-1-1 system and the EMD program.

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Once you have involved political officials and the media and have trained public safety agency personnel (including supervisors), your ongoing public awareness efforts should then be focused on school-age children and the general public.

Remember to set GOALS for your Public Information and Education Plan. These goals should include:

1. telling the public that the way calls are taken will change, that you are still going to come to them but that you are going to ask some questions first in an effort to better serve their emergency medical needs;
2. defining what is considered an emergency according to the input from the serving public safety agencies;
3. what situations EMDs should be used for and educating your community that EMD service is available;
4. where EMD service is available;
5. keeping down the number of prank or false calls on your system;
6. setting an objective regarding the number of "real" EMD calls which you expect to receive and realistic timelines to reach these objectives;
7. use of the regular 7-digit number for non-emergency situations;
8. how to access EMDs from certain types of telephones, such as detached extensions off of PBX's, coin phones, TTY/TDD devices, mobile phones, cordless telephones, and radio-activated phones;
9. the importance of knowing and communicating the address of where the help is needed and the type of emergency and
10. how to address the needs of special interest groups such as non-English speaking callers, deaf/hearing-impaired callers, theme parks, business complexes, and shopping malls. Include their input on acceptable call-handling procedures.

Public awareness and education is an ongoing process. It is not a task which occurs just once in the life of your EMD system.

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## **C. The Circular Evolution of EMD Programs**

An ongoing EMD QA/QI and CDE program is in constant evolution and enhancement. After training and implementation, feedback guides the advancement and improvement of the system. Without this process the program falters and becomes stale.

## **D. Begin Dispatch Feedback and Performance Monitoring**

A vital part of the feedback process includes the use of a formal process of dispatch feedback reporting, submitted by all dispatch related parties, including EMS field personnel (public and private), law enforcement, hospitals and dispatchers themselves.

This written clarification of "what happened" at dispatch is researched by the QA/QI personnel and shared with the dispatchers, supervisors, and/or, in interesting or judgment-call cases, the guidance committee. This helps to organize the process of case review.

The QA/QI process provides useful information that can alert the administrative personnel of possible dispatch problems related to the medical dispatch operation.

Dispatchers should receive feedback on a weekly basis with respect to their protocol compliance and how their performance effects the system generally. Weekly feedback and remediation keeps the education and evaluation process going and communicates to the dispatchers that the EMD program is seen by administration as a serious and permanent operation.

## **E. Replacement Training for Attrition**

Just like QA, training is also a process, not an event. A sound ongoing program of continuing dispatcher education is essential. Without routine monthly education, an initially sound EMD program gets slowly weaker. CDE at a minimum, is one hour per month and includes review of dispatch priorities, practical "mock" scenario drills, BLS level techniques, appropriate reading, and even field experience with EMS crews.

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As professional medical personnel, EMD's should have access to and be directed to routinely read professional and trade journals representing the fields of both telecommunications and emergency medical services. Dispatchers and their supervisors should be allowed to attend remote conferences and seminars that, in essence, bring new life into the local center. A CDE tracking process for each dispatcher should be established and maintained by the quality assurance staff to insure that all necessary elements of CDE are received.

The continuing education programs must be well designed and address topics based upon QA findings. Through consistent and ongoing line case review, the reviewer is able to identify and measure system efficiency based on the dispatcher's compliance to identified performance standards. More attention should be paid to the medical aspects of dispatch. This knowledge enhances the dispatcher's confidence in dealing with various medical emergencies. Ongoing supervised scenario drills, lectures, in service presentations, etc. familiarize the dispatchers with the proper utilization of the protocols, the rationale behind their design and the logic of their operation. Having immediate resource ability and feedback, in these sessions, enhances the dispatcher's knowledge and understanding of the protocols.

Using continuing education to remediate weaknesses found during the QA process further enhances the risk management of the system. Discovering errors, retraining to correct the errors and tracking employee performance through QA allows for disciplinary due process when cumulative measures to correct individual performance are not effective. In this way you are able to identify unsafe practitioners and maintain the desired level of operational integrity and consistency within the system.

## **F. Continuing Dispatch Education (CDE) Objectives**

The CDE program must be organized around the standards of care, practice and responsibilities of the EMD and meet the following specific objectives:

1. Maintain and develop the EMD's understanding of medical conditions, incident types and the priorities necessary when performing caller assessment and prioritization of medical calls.
2. Maintain and improve skills in providing telephone pre-arrival instructions offered in the scope of the EMD's certified training.
3. Maintain and improve the EMD's ability to use the EMDPRS.



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4. Maintain knowledge of seldom used technical aspects of the system such as phone patching, emergency procedures, etc.
5. Provide opportunities for discussions, skill practice and critique of skill performance.
6. Review and understand issues and findings identified by the dispatch quality assurance process.

These objectives may be accomplished in the following ways:

1. **Group Training**

Provide workshops, seminars and conferences that relate to the required skills of an Emergency Medical Dispatcher. Some examples include: CPR, airway management, patient assessment, reviewing the thirty-two chief-complaints, use of equipment and refresher courses.

Organize local training meetings to review emergency medical services procedures and communications. Have guest speakers present material related to emergency care procedures, medical-legal requirements or other topics which are directly related to the function of an Emergency Medical Dispatcher.

Coordinate demonstration or practice sessions utilizing available dispatch life support equipment. Have community emergency exercises and disaster drills if possible and appropriate.

Show audiovisuals (films, videos) which illustrate and review proper emergency medical dispatch procedures. Specific college courses may also be utilized.

2. **Teaching Classes**

EMDs can teach the general public (schools, scouts, clubs, or church groups) any topic within the scope of the Emergency Medical Dispatcher.

3. **Scenario Training**

Practical training and role playing using the EMDPRS should be ongoing.

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## **4. "Ride-Alongs"**

EMDs should ride with paramedic or ambulance units to understand the EMS system from the other side of the radio. It may also be useful to have paramedics and ambulance unit personnel visit the EMDs to see the environment in which EMDs work.

## **G. Modifying the EMDPRS**

The enhancement and modification of EMDPRS processes and response configurations requires the adoption of a formal department policy outlining this process as identified by the guidance committees.

Any changes that are identified that need to be made to the EMDPRS should be based on verifiable data and patterns of error over time vs. isolated incidents. If the protocol was not followed and the error was made as result of this omission, no change should be recommended. If the EMDPRS was followed and a pattern of similar mistakes is identified over time, then a recommendation should be made to the appropriate guidance committees for a change.

Any recommended change should include all data that the change is based upon, all taped cases demonstrating the error, and recommendations for change to reduce the likelihood of error in the future. Some proprietary systems have an established review process for implementing changes.

Changes should not be made based on isolated incidents or without sufficient data to back up the recommended change. There is a tendency to modify protocols before the practice has been examined. This is a major error in protocol modification schemes.

All modifications must be approved by the supplier of the EMDPRS, all guidance committees and the medical director before any changes are made. Changes should then be tracked carefully to determine appropriateness of the change and the effect of the change on the error rate.

## **H. Certification Requirements and Re-certification Requirements**

This guideline is designed to assist Emergency Medical Dispatchers (EMDs) to understand and complete common two year re-certification requirements.

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Each EMD is usually individually responsible for completing and submitting the required re-certification material to the certifying entity. However, the EMD may work with an EMS organization which may organize and conduct continuing dispatch education (CDE) programs to compile and submit re-certification materials on behalf of the EMD.

Re-certification allows the agency, supervisor and medical director to formally assure continued adherence by the EMD to state and national requirements and standards. Documentation of objective criteria in the form of hours and types of CDE, practical and written examinations, and established processes for decertifying individuals who cannot meet such minimal criteria is crucial.

Re-certification is normally required every two to four years to maintain certification. There are commonly twenty four hours of CDE requirement to re-certify. Some certifying entities often have a certification, re-certification or testing fee. This should be taken into consideration when budgeting.

Previous certification can be checked by contacting the certifying entity and requesting records of certification.

There are state certification programs along with certification programs offered by national organizations and proprietary agencies. At present, many states are in the process of creating formal certification requirements, but there are very few that provide training and certification. Most local programs rely on programs already marketed by proprietary agencies.

## **I. Reciprocal Certification Requirements**

Reciprocal certification should be established at the state level to deal with the various EMD programs. The diversified EMDPRS protocols require specific training and knowledge in their proper use. Therefore, the emergency medical dispatcher wishing reciprocal certification must receive formal training on the specific EMDPRS which is used for the certification being sought and as used within the EMDs employing agency. For further information on certification and reciprocal certification, refer to ASTM standard F1560-94, Sections 9 through 11.

Any reciprocal certification should require that the EMD demonstrate knowledge of the philosophy and use of a specific EMDPRS. The EMD should also be tested, using a practical examination to ensure the proper use of the new system.

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Each agency and guidance committee should establish their own in-house criteria for reciprocity and skill demonstration. Performance thresholds should be established to educate and test the EMD to ensure that everyone seeking reciprocity meet a minimum standard of care within the new agency.

## **J. EMD Skills Checklist**

Each training entity should adopt a formal written policy delineating the skills to be demonstrated by the dispatcher after training. Upon completion of training the EMD should, at a minimum, be able to:

- ☐ perform verbal skills in a clear and understandable manner, in the required language or languages established in the criteria as necessary to that dispatch provider agency;
- ☐ perform alphanumeric transcription skills necessary to correctly record addresses, locations, and telephone numbers;
- ☐ demonstrate an attitude of helpfulness and compassion toward the sick and injured patient and his/her caller advocate;
- ☐ clearly guide callers in crisis through necessary interrogation procedures and the provision of telephone pre-arrival instructions;
- ☐ efficiently and effectively organize multiple tasks and complicated situations and activities;
- ☐ function within the team framework of public safety and EMS systems;
- ☐ handle the levels of emotional stress clearly present in caller/patient crisis intervention, death and dying situations, call prioritization and triage, and multiple tasking;
- ☐ elicit and assimilate caller information to prioritize and properly consolidate (summarize) this information into a format used to inform the public safety responders;
- ☐ demonstrate skilled use of the EMDPRS and appropriate compliance to interrogation questioning sequences and pre-arrival instructions and
- ☐ demonstrate the ability to appropriately assign response configurations based on information gleaned from callers.

# **EMD PROGRAM IMPLEMENTATION AND ADMINISTRATION**

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## **K. Refusal, Suspension or Revocation of Certification**

While the goal of quality assurance is always to correct deficiencies and encourage excellence (not just adherence to minimum standards) there comes a time when, for EMD's failing to meet standards, or who are involved in activities not becoming a professional, terminal action is required.

Demonstrated inability and failure to perform adequate patient care through approved pre-arrival instructions and failure to perform according to the predetermined medically approved EMDPRS protocols are very significant failures and cannot be tolerated in a well run comprehensive EMD system.

EMD certification or re-certification, may be suspended or revoked by the agency or certifying entity for any of the following causes (adapted from ASTM Standard F1560-94):

- ☐ habitual or excessive use of, or addiction to, narcotics or dangerous drugs; or conviction of any offense relating to the use, sale, possession, or transportation of narcotics dangerous drugs or controlled substances;
- ☐ habitual or excessive use of, or addiction to, alcoholic beverages or being under the influence of alcoholic beverages or controlled substances while on call or duty as an EMD; or conviction of driving under the influence of alcohol or controlled substances while driving a vehicle;
- ☐ fraud or deceit in applying for or obtaining any certification; or fraud deceit, incompetence, patient abuse, theft, or dishonesty in the performance of duties and practice as an EMD or other EMS professional;
- ☐ involvement in the unauthorized use or removal of narcotics, supplies or equipment from any emergency vehicle, agency or health care facility;
- ☐ performing procedures or skills beyond the level of certification or not allowed by rules; or violation of laws pertaining to medical practice and drugs;
- ☐ conviction of a felony or a crime involving moral turpitude; or the entering of a plea of guilty or the finding of guilt by jury or court, of commission of a felony or a crime involving moral turpitude;

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- ☐ mental incompetence as determined by a court of competent jurisdiction;
- ☐ for good cause, including conduct that is unethical, immoral or dishonorable;
- ☐ demonstrated inability and failure to perform appropriate patient care through approved pre-arrival instructions and
- ☐ demonstrated inability and failure to perform according to the medically approved EMDPRS protocols.

## **L. Program Evaluation**

The best means of dispatch system and protocol evaluation, validation, and dispatcher performance monitoring is through on-line random tape review by trained dispatch QA personnel. This gives the QA personnel pertinent information regarding protocol compliance and the effects of noncompliance on the system. Errors in response level selection should be related to system performance policies and assessments.

Errors should relate to compliance, protocol or external factors that are beyond the dispatcher's control. Errors in compliance cases should be remediated and feedback given to the dispatcher. Errors in the protocol should be documented and forwarded with data showing error patterns (instead of isolated incidents) and reported to the guidance and QA/QI committees for a possible change in protocol. Errors related to external factors (those beyond the EMD's control) case should be documented and filed, and feedback should be given to the dispatcher indicating that the error was out of the control of the EMD handling the case.

# EMD PROGRAM IMPLEMENTATION AND ADMINISTRATION

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## Conclusion

This manager's guide has walked you through the basics of implementing and administering EMD programs. In Part One you learned the basics of constituency building, selection of personnel and committees, training considerations and EMDPRS selection. In Part Two you learned what kinds of things to consider when establishing a training program, from design through OJT considerations. In Part Three, you learned how to follow-up your implementation and training strategies with the basics of on-going QA/QI programs. You also learned about certification, re-certification and reciprocal certification.

*Please remember that the recommendations made in this manual are just that: **recommendations**.* As such, you should feel free to use these recommendations to help you establish your own policies and procedures. As long as the requirements of the NHTSA curriculum are met, there are no hard and fast rules about implementing, QA/QI, training or EMD program management. What works in your area, might not work for another and vice versa.

# ***EMD PROGRAM IMPLEMENTATION AND ADMINISTRATION***

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